

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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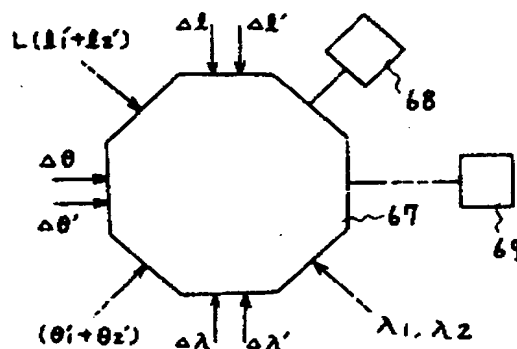
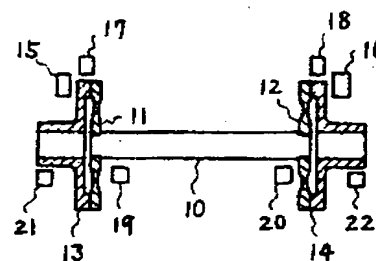
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TITLE : MONITORING METHOD FOR  
TROUBLE ON FLEXIBLE COUPLING  
AND DEVICE THEREOF



ABSTRACT : PURPOSE: To prevent the occurrence of a breakdown trouble before it happens, by a method wherein an elongation difference, twist, and vibration of a coupling are detected directly, and the value, a first regulation of a coupling are detected directly, and the value, a first regulation value, and a second regulation value, having a higher abnormality than that of the first regulation value, are compared with each other.

CONSTITUTION: A flexible coupling consists of a rotary shaft 10, diaphragms 11 and 12, and coupling 13 and 14. A monitoring device is provided with elongation difference detectors 15 and 16, twist detectors 17 and 18, and vibration detectors 19~22 to always and directly detect the elongation difference, twist, and vibration of the diaphragms 11 and 12. A first and a second regulation value of the elongation difference, twist, and the vibration are stored in a comparator 67 beforehand. The first regulation values  $\Delta l$ ,  $\Delta \theta$ ,  $\Delta \lambda$  are set to a safe allowable value which is to extent that the part of the flexible coupling is safe allowable value which is to extent that the weakest part of the flexible coupling is not broken, and the second regulation value  $\Delta l'$ ,  $\Delta \theta'$ ,  $\Delta \lambda'$  are set to a value whose abnormality is higher than that of the first regulation value. The comparator 67 sends a command to an alarm circuit 68 when one of the detection values attains the first regulation value, and transmits it to a controller 69 when the detection value further reaches the second regulation value.

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